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EXAMINER

LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/829,522	Applicant(s) DOVE, DANIEL J.	
	Examiner Dmitry Levitan	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-17 and 21-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-17 and 21-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicant's amendments, filed 04/21/04 and 10/17/05, have been entered. Claims 1-6, 8-17 and 21-79 remain pending.

Specification

1. The abstract of the disclosure is objected to because it is too long. Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities: typographical error in Amendment B to the specification: as serial number 10/099,372 is continuation-in-part of 09/691,726, as correctly stated in the Amendment A.

Appropriate correction is required.

Drawings

3. The drawings were received on 06/24/04. These drawings are not approved.
4. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. Current designation "Background Method" is unclear. See MPEP § 608.02(g).
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: B1_DA+ and similar entries of the table on Fig. 4.
6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the defied timer, Normal Link Pulses,

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IDLE, T-pulse, signal detector, reset signal generator must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "22" and "24" have both been used to designate the same connection shown on Fig. 2.

8. The drawings are objected to because of typographical errors on Fig. 6.

9. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37

CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Current drawings do not show signal detectors, timers and reset, link detect, force hold and etc. signals, as disclosed in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 26, 31, 33, 45, 50, 52, 62, 70 and 72 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 17 of U.S. Patent No. 6,460,078. Although the conflicting claims are not identical, they are not patentably distinct over the patent claims, because the claims are the obvious broader versions of the patent claims.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. Claims 1-6, 8-17 and 61-79 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not provide sufficient details to enable a skilled in the art to make and use the invention because it does not adequately describe the following:

Regarding claims 1 and 6-9, how the apparatus/method operates in forced speed and duplex mode. Forced speed was mentioned many times in the current application, but was never properly disclosed.

Regarding claims 3-5 and 15-17, how the claimed signals Normal Link Pulses, IDLE and T-pulse signals are transmitted in the system.

Claim 61 is rejected as single means claim. A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim

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covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor. See MPEP 2164.08(a).

Claims 62-79 are rejected as claims depending on claim 61, which was rejected above.

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claims 1-6, 8-17, 58 and 77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 6, 8 and 9 limitations directed to “connecting a first pair connectors to a first pair of signals” is unclear, because signals are not hardware devices, like cables or wires, and therefore cannot be connected to connectors.

Claims 3-5 and 15-17 limitations comprising “Normal Link Pulses, IDLE and T-pulse signals” are unclear, because it is not understood what these signals mean in the context of the claims.

Claim 11 is unclear, as an incomplete claim, as the claim depends on itself: “Claim 11. The apparatus of claim 11, ...”.

16. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999).

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The term “transmitter and receiver” in claims 58 and 77 is used by the claim to mean “switch connectors portions with transmit and receive signals”, while the accepted meaning is “switch connectors.” The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 1, 3-5, 8, 21-25, 27-30, 37-39 40-44, 46-49, 56-61, 63-69 and 76-79 are rejected (as best understood) under 35 U.S.C. 102(b) as being anticipated by Bontemps (US 5,923,663).

19. Regarding claims 1, 8, 21, 24, 25, 40, 43, 44, 61, 65 Bontemps teaches a method and an apparatus for automatically configuring media connections (automatic media detection circuit 200 on Fig. 2 and 7:19-36) when operating in forced speed and duplex mode (the circuit operates with link integrity pulses, defined by IEEE 802.3 Standard, so the pulses sequences/speed are forced/defined for the automatic media detection circuit 10:25-55 and establishing a duplex link as shown on Fig. 2), comprising:

Connecting a first pair of connectors to a first pair of conductors and a second pair of connectors to a second pair of conductors during the first state (connector 220a to conductors 210a and connector 220b to conductors 210b on Fig. 2, when signal XOVER-SEL1 is low, and

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8:17-37), and connecting the first pair of connectors to the second pair of conductors and the second pair of connectors to the first pair of conductors during a second state (connector 220a to conductors 210b and connector 220b to conductors 210a on Fig. 2, when signal XOVER-SEL1 is high, and 8:37-57);

Holding the first state or the second state if operating in forced speed and duplex mode (exercising the detection method as disclosed above), a defined time has not expired (holding first state, as signal XOVER-SEL1 high follows the SAMPLE signal, suggested as 3-4 Hz, defining the state expiration time, as shown on Fig. 4 and 14:5-45) and another end of a link can receive a signal (successfully detecting a series of link pulses to determine a valid link 10:44-64).

In addition, regarding claims 8 and 61, Bontemps teaches means for pairs connections as select logic 214 on Fig. 2 and 7:50-67.

In addition, regarding claims 21 and 61, Bontemps teaches switching transmit and receive between the connectors, as a crossover function 7:5-15 implemented by contact pairs, shown on Fig. 2 and 8:17-37.

In addition, regarding claim 40, Bontemps teaches media switch (select logic 214 comprising switch contacts on Fig. 2 and 7:50-67).

20. Regarding claim 3, Bontemps teaches transmitting Normal Link Pulses during the defined time (transmitting NPL for the defined toggle cycles of XOVER-SEL1 signal 10:25-64).

21. Regarding claim 4, Bontemps teaches using toggle pulses XOVER of predefined time 8:1-57, therefore inherently transmitting an IDLE signal in the time period without the toggle signals.

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22. Regarding claims 5, 27, 46 and 66, Bontemps teaches transmitting, T-pulse, XOVER SEL, signal to disable toggling when a transmission is occurring, as indicated by LINK DETECT signal, as described 11:10:45-11:40, detected by mode control circuit 222.
23. Regarding claims 22, 23, 41, 42, 63 and 64, Bontemps teaches using data comprising link pulses 10:25-40 and data in packet format, Ethernet, ATM, etc. 5:57-6:5.
24. Regarding claims 28-30, 47-49 and 67-69, Bontemps teaches using a controlling signal XOVER SEL, shown on Fig. 2 and 8:1-57, setting the modes, including first and second values, high and low 8:17-57, during each of the toggling periods, wherein the toggle period is controlled by the SAMPLE signal control 10:64-11:24, according to the protocol to be detected.
25. Regarding claims 37-39, 56-60 and 76-79, Bontemps teaches using the controlling signal XOVER select, received by the switch contacts of the media switch, comprising mode control circuit and switch contacts, shown on Fig. 2 and 7:20-67, wherein the switch includes a plurality of switch contacts 212a connecting first and second pairs, according to the first and second modes as shown on Fig. 2 and 8:1-60.

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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27. Claims 2, 6, 9, 12, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bontemps.

28. Regarding claims 6 and 9, Bontemps substantially teaches the limitations of claims 6 and 9 (see rejection of claims 1 and 8 above), including media switch (select logic 214 on Fig. 2 and 7:50-67).

Bontemps does not teach implementing the method in software and utilizing a processor to control the media switch.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add implementing the method in software and utilizing a processor to control the media switch to the system of Bontemps to improve the system flexibility, by simplifying making any necessary changes in the system, as achieved in any system implementing a processor and software.

29. Regarding claim 12, Bontemps teaches detecting communication signals transmitted from the other side of the link 10:44-65.

30. Regarding claim 13, Bontemps teaches a reset signal generator configured to reset the state to the first state (a mode circuit 416 on Fig. 4 and 14:19-29 to reset the system to any desirable state).

31. Regarding claim 15, Bontemps teaches transmitting Normal Link Pulses during the defined time (transmitting NPL for the defined toggle cycles of XOVER-SEL1 signal 10:25-64).

32. Regarding claims 2 and 14, Bontemps teaches all the limitations of parent claim 1 and substantially teaches the limitations of parent claim 9 (see rejection of claims 1 and 9 above), including defining the time for first and second states.

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Bontemps does not teach arranging the defined time for four seconds.

It would have been obvious to one of ordinary skill in the art at the time the invention was made

To arrange the defined time for four seconds as a design choice, because three seconds or five seconds will work in the system as well.

33. Regarding claim 16, Bontemps teaches using toggle pulses XOVER of predefined time 8:1-57, therefore inherently transmitting an IDLE signal in the time period without the toggle signals.

34. Regarding claim 17, Bontemps teaches transmitting, T-pulse, XOVER SEL, signal to disable toggling when a transmission is occurring, as indicated by LINK DETECT signal, as described 11:10:45-11:40.

35. Claims 32, 51 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bontemps.

Bontemps substantially teaches the limitations of the parent claims (see rejections above)

Bontemps does not teach using time periods of 50-60 milliseconds for toggle time period.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using time periods of 50-60 milliseconds for toggle time period to the system of Bontemps as a design choice because the time periods of 40-70 milliseconds will work in the system as well.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571) 272-7529. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Handwritten signature of Dmitry Levitan in black ink.

Dmitry Levitan
Examiner
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